

# BARNES & THORNBURG



PATENT APPLICATION

11 South Meridian Street  
Indianapolis, Indiana 46204  
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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*Group:* Unknown

} Certificate Under 37 CFR 1.8(a)

*Confirmation*

*No.:* Unknown

} I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231

*Application*

*No.:* 10/046,030

} on February 21, 2002

*Invention:* INSTRUMENT

} (Signature)

} Kim Tyree

*Applicant:* Zindel H. Heller

} (Printed Name)

*Filed:* November 7, 2001

*Attorney*

*Docket:* 5727-65832

*Examiner:* Unknown

}

## INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

This statement is filed in the application identified above pursuant to 37 C.F.R. § 1.56. No representation is intended that a complete search has been made of the prior art or that no better art references than listed below are available. A copy of each reference is provided for review by the Examiner. The filing of this Statement shall not be construed to be an admission that the information cited in the Statement is, or is considered to be, material to patentability as defined in §1.56(b).

Please charge any fees that might be due in connection with this Information Disclosure Statement to our Deposit Account No. 10-0435 with reference to our file 5727-65832. An extra copy of this Information Disclosure Statement is enclosed for that purpose.

Respectfully submitted,

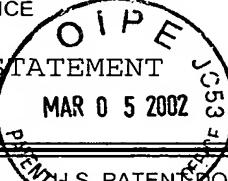
BARNES & THORNBURG



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INDS02 RDC 429721v1

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 5727-65832	SERIAL No. 10/046,030
INFORMATION DISCLOSURE STATEMENT		APPLICANT Zindel H. Heller	
		FILING DATE November 7, 2001	GROUP Unknown
 U.S. PATENT DOCUMENTS			

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	AA	3,770,607	06 Nov 1973	Williams			
	AB	3,838,033	24 Sep 1974	Mindt et al.			
	AC	3,902,970	02 Sep 1975	Levin			
	AD	3,925,183	09 Dec 1975	Oswin et al.			
	AE	3,937,615	10 Feb 1976	Clack et al.			
	AF	4,005,002	25 Jan 1977	Racine et al.			
	AG	4,040,908	09 Aug 1977	Clark, Jr.			
	AH	4,086,631	25 Apr 1978	Vick			
	AI	4,123,701	31 Oct 1978	Josefsen et al.			
	AJ	4,127,448	28 Nov 1978	Schick et al.			
	AK	4,214,968	29 Jul 1980	Battaglia et al.			

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
	AL	98/35225	13 Aug 1998	WO			X
	AM	99/28736	10 Jun 1999	WO			X
	AN	99/32881	01 Jul 1999	WO			X
	AO	3,228,542	02 Feb 1984	Germany			X (Abstract only)
	AP	206,218	30 Dec 1986	EP			X

OTHER REFERENCES (*Including Author, Title, Date, Pertinent Pages, Etc.*)

	AR	Talbott, et al, "A New Microchemical Approach to Amperometric Analysis," Microchemical Journal, Vol. 37, pp. 5-12 (1988)
	AS	Morris, et al, "An Electrochemical Capillary Fill Device for the Analysis of Glucose Incorporating Glucose Oxidase and Ruthenium(III) Hexamine as Mediator," Electroanalysis, Vol. 4, pp. 1-9 (1992)
	AT	Cass, et al, "Ferrocene-Mediated Enzyme Electrode for Amperometric Determination of Glucose," Anal. Chem., Vol. 56, pp. 667-671 (1984)
	AU	Zhao, "Contributions of Suspending Medium to Electrical Impedance of Blood," Biochimica et Biophysica Acta, Vol. 1201, pp. 179-185 (1994)
	AV	Zhao, "Electrical Impedance and Haematocrit of Human Blood with Various Anticoagulants," Physiol. Meas., Vol. 14, pp. 299-307 (1993)
	AW	Muller, et al, "Influence of Hematocrit and Platelet Count on Impedance and Reactivity of Whole Blood for Electrical Aggregometry," Journal of Pharmacological and Toxicological Methods, Vol. 34, pp. 17-22 (1995)
	AX	Preidel, et al, "In Vitro Measurements with Electrocatalytic Glucose Sensor in Blood," Biomed. Biochim. Acta, Vol. 48, pp. 897-903 (1989)
	AY	Preidel, et al, "Glucose Measurements by Electrocatalytic Sensor in the Extracorporeal Blood Circulation of a Sheep," Sensors and Actuators B, Vol. 2, pp.257-263 (1990)
	AZ	Saege, et al, "Influence of Urea on the Glucose Measurement by Electrocatalytic Sensor in the Extracorporeal Blood Circulation of a Sheep," Biomed. Biochim. Acta, Vol. 50, pp. 885-891 (1991)

Examiner	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.  
 Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<p style="text-align: center;"><b>U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE</b></p> <p style="text-align: center;"><b>INFORMATION DISCLOSURE STATEMENT</b></p> <p style="text-align: center;">MAR 05 2002</p>				ATTY. DOCKET NO. 5727-65832	SERIAL No. 10/046,030		
				APPLICANT Zindel H. Heller			
				FILING DATE November 7, 2001	GROUP Unknown		
<b>PATENT &amp; TRADEMARK DOCUMENTS</b>							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
BA		4,217,196	12 Aug 1980	Huch			
BB		4,224,125	23 Sep 1980	Nakamura et al.			
BC		4,225,410	30 Sep 1980	Pace			
BD		4,230,537	28 Oct 1980	Delente et al.			
BE		4,260,680	07 Apr 1981	Muramatsu et al.			
BF		4,263,343	21 Apr 1981	Kim			
BG		4,265,250	05 May 1981	Parker			
BH		4,273,134	16 Jun 1981	Ricciardelli			
BI		4,301,412	17 Nov 1981	Hill et al.			
BJ		4,303,887	01 Dec 1981	Hill et al.			
BK		4,366,033	28 Dec 1982	Richter et al.			
<b>FOREIGN PATENT DOCUMENTS</b>							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
BL		230,472	05 Aug 1987	EP			X
BM		241,309	19 Oct 1987	EP			X
BN		255,291	03 Feb 1988	EP			X
BO		471,986	26 Feb 1992	EP			X
BP		63-128,252	31 May 1988	Japan			X (Abstract only)
<b>OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
BR	Kasapbasioglu, et al, "An Impedance Based Ultra-Thin Platinum Island Film Glucose Sensor," Sensors and Actuators B, Vol. 13-14, pp. 749-751 (1993)						
	BS	Beyer, et al, "Development and Application of a New Enzyme Sensor Type Based on the EIS-Capacitance Structure for Bioprocess Control," Biosensors & Bioelectronics, Vol. 9, pp. 17-21 (1994)					
BT		Mohri, et al, "Characteristic Response of Electrochemical Nonlinearity to Taste Compounds with a Gold Electrode Modified with 4-Aminobenzenethiol," Bull. Chem. Soc. Jpn., Vol. 66, pp. 1328-1332 (1993)					
	BU	Cardosi, et al, "The Realization of Electron Transfer from Biological Molecules to Electrodes," Biosensors Fundamentals and Applications, chapt. 15 (Turner, et al, eds., Oxford University Press, 1987)					
BV		Mell, et al, "Amperometric Response Enhancement of the Immobilized Glucose Oxidase Enzyme Electrode," Analytical Chemistry, Vol. 48, pp. 1597-1601 (Sept. 1976)					
	BW	Mell, et al, "A Model for the Amperometric Enzyme Electrode Obtained Through Digital Simulation and Applied to the Immobilized Glucose Oxidase System," Analytical Chemistry, Vol. 47, pp. 299-307 (Feb. 1975)					
BX		Myland, et al, "Membrane-Covered Oxygen Sensors: An Exact Treatment of the Switch-on Transient," Journal of the Electrochemical Society, Vol. 131, pp. 1815-1823 (Aug. 1984)					
	BY	Bradley, et al, "Kinetic Analysis of Enzyme Electrode Response," Anal. Chem., Vol. 56, pp. 664-667 (1984)					
BZ		Koichi, "Measurements of Current-Potential Curves, 6, Cottrell Equation and its Analogs. What Can We Know from Chronoamperometry?" Denki Kagaku oyobi Kogyo Butsuri Kagaku, Vol. 54, no.6, pp. 471-5 (1986)					
	Examiner				Date Considered		
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*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	CA	4,407,959	04 Oct 1983	Tsuji et al.			
	CB	4,413,628	08 Nov 1983	Tamulis			
	CC	4,420,564	13 Dec 1983	Tsuji et al.			
	CD	4,431,004	14 Feb 1984	Bessman et al.			
	CE	4,436,094	13 Mar 1984	Cerami			
	CF	4,440,175	03 Apr 1984	Wilkins			
	CG	4,477,314	16 Oct 1984	Richter et al.			
	CH	4,477,575	16 Oct 1984	Vogel et al.			
	CI	4,499,423	12 Feb 1985	Matthiessen			
	CJ	4,517,291	14 May 1985	Seago			
	CK	4,654,197	31 Mar 1987	Lilja et al.			

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
	CL	63-111,453	16 May 1988	Japan			
	CM						
	CN						
	CO						
	CP						

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	CR	Williams, et al, "Electrochemical-Enzymatic Analysis of Blood Glucose and Lactate," Analytical Chemistry, Vol. 42, no. 1, pp. 118-121 (Jan. 1970)
	CS	Gebhardt, et al, "Electrocatalytic Glucose Sensor," Siemens Forsch.-u. Entwickl.-Ber. Bd., Vol. 12, pp.91-95 (1983).
	CT	E. Weber, Linear Transient Analysis, John Wiley and Sons, N.Y., 1954, Vol. , pages 60-61, 72-73 and 172-173
	CU	
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 U.S. PATENT DOCUMENTS			

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	DA	4,671,288	09 Jun 1987	Gough			
	DB	4,679,562	14 Jul 1987	Luksha			
	DC	4,682,602	28 Jul 1987	Prohaska			
	DD	4,703,756	03 Nov 1987	Gough et al.			
	DE	4,711,245	08 Dec 1987	Higgins et al.			
	DF	4,734,184	29 Mar 1988	Burleigh et al.			
	DG	4,750,496	14 Jun 1988	Reinhart et al.			
	DH	4,759,828	26 Jul 1988	Young et al.			
	DI	4,789,804	06 Dec 1988	Karube et al.			
	DJ	4,795,542	03 Jan 1989	Ross et al.			
	DK	4,805,624	21 Feb 1989	Yao et al.			

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes No
	DL						
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## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

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## U.S. PATENT DOCUMENTS

*Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
EA	4,816,224	28 Mar 1989	Vogel et al.			
EB	4,820,399	11 Apr 1989	Senda et al.			
EC	4,871,258	03 Oct 1989	Herpichboehm et al.			
ED	4,897,162	30 Jan 1990	Lewandowski et al.			
EE	4,897,173	30 Jan 1990	Nankai et al.			
EF	4,919,770	24 Apr 1990	Preidel et al.			
EG	4,927,516	22 May 1990	Yamaguchi et al.			
EH	4,935,106	19 Jun 1990	Liston et al.			
EI	4,938,860	03 Jul 1990	Wogoman			
EJ	4,940,945	10 Jul 1990	Littlejohn et al.			
EK	4,970,145	13 Nov 1990	Bennetto et al.			

## FOREIGN PATENT DOCUMENTS

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EL						
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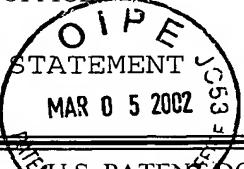
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*Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
FA	4,975,647	04 Dec 1990	Downer et al.			
FB	4,999,582	12 Mar 1991	Parks et al.			
FC	4,999,632	12 Mar 1991	Parks			
FD	5,011,290	30 Apr 1991	Terada et al.			
FE	5,053,199	01 Oct 1991	Keiser et al.			
FF	5,108,564	28 Apr 1992	Szuminsky et al.			
FG	5,128,015	07 Jul 1992	Szuminsky et al.			
FH	5,160,980	03 Nov 1992	Herpichboehm et al.			
FI	5,232,668	03 Aug 1993	Grant et al.			
FJ	5,243,516	07 Sep 1993	White			
FK	5,246,858	21 Sep 1993	Arbuckle et al.			

## FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation Yes No
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## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

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GA	5,269,891	14 Dec 1993	Colin			
GB	5,284,770	08 Feb 1994	Adrian et al.			
GC	5,288,636	22 Feb 1994	Pollmann et al.			
GD	5,312,762	17 May 1994	Guiseppi-Elie			
GE	5,352,351	04 Oct 1994	White et al.			
GF	5,366,609	22 Nov 1994	White et al.			
GG	5,371,687	06 Dec 1994	Holmes et al.			
GH	5,379,214	03 Jan 1995	Arbuckle et al.			
GI	5,385,846	31 Jan 1995	Kuhn et al.			
GJ	5,395,504	07 Mar 1995	Saurer et al.			
GK	5,469,846	28 Nov 1995	Khan			

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GL						
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## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

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	HA	5,508,171	16 Apr 1996	Walling et al.			
	HB	5,508,203	16 Apr 1996	Fuller et al.			
	HC	5,509,410	23 Apr 1996	Hill et al.			
	HD	5,512,489	30 Apr 1996	Girault et al.			
	HE	5,522,255	04 Jun 1996	Neel et al.			
	HF	5,594,906	14 Jan 1997	Holmes, II et al.			
	HG	5,686,659	11 Nov 1997	Neel et al.			
	HH	5,710,622	20 Jan 1998	Neel et al.			
	HI	5,789,664	04 Aug 1998	Neel et al.			
	HJ	5,792,944	11 Aug 1998	Lennert et al.			
	HK	5,832,921	10 Nov 1998	Lennert et al.			

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	HL						
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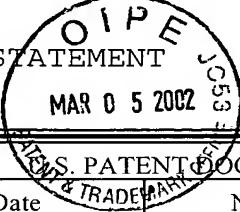
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IA	5,841,023	24 Nov 1998	Parker et al.			
IB	5,942,102	24 Aug 1999	Hodges et al.			
IC	5,997,817	07 Dec 1999	Crismore et al.			
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